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ABSTRACT

A study explored informal learning in relation to online communications and working class people's use of computers as a socially situated practice rooted in collective, communal relationships. It drew on analysis of online learning workshop participation in specially initiated sessions among Canadian labor activist/educators. Findings were based on analysis of interview and survey data and content and interaction analysis of online postings. Survey data indicated participants had computer literacy levels exceeding those of the general population; the majority had access to home and/or workplace computers for workshop participation; and communication with participants and non-participants beyond the formal structure of the workshop was crucial. Interviews showed a better understanding was needed of the dynamics of informal learning in virtual space; key barriers to online learning among activist/educators were resources, time, distance, and extensive reading and writing requirements; and a less obvious barrier concerned "communication literacy," a basic appreciation of the mechanics of interaction, turn-taking, and explicit framing and re-framing of the situation. Strong evidence suggested online learning could be a valuable addition to the labor movement's education/communication capacity, an important part of which revolved around recognition of informal learning, tacit dimensions of participation, broader context of participants' lives, and linkages between the online and offline worlds. (Conains 32 references.) (YLB)

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NALL Working Paper

ONLINE LEARNING FOR LABOUR MOVEMENT ACTIVISTS

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NALL Working Paper #46-2001

Online Learning for Labour Movement Activists

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Online Learning for Labour Movement Activists(1)

Abstract: *The paper reports on the findings of research seeking to understand the informal dimensions of online learning in the labour movement. It draws on analysis of online learning workshop participation in specially initiated sessions amongst labour activist/educators from across Canada. Findings are based on the analysis of original interview data and survey data as well as content and interaction analysis of online postings. Various barriers to effective participation are discussed as are possible functions of online learning/communication in the labour movement. It argues that there is strong evidence to suggest that online learning can be a valuable addition to the education capacity of the labour movement, and that an important part of this contribution revolves around a recognition of informal learning, the linkages between the online and the offline world, and the unique goals of the labour movement. Focusing on the different informal dimensions of the learning process helps us understand that online learning perhaps offered the 'best of both worlds' in terms of written and oral learning cultures within the labour movement.*

Introduction

> It's the old think globally act locally. You're working collaboratively in your community with people on issues… [With online learning] you can link with other people who are doing work, look at their strategy see if there's something you can learn, access information. You know, when you're trying to research a campaign, if you can make a link with someone else who's been working on privatization in Australia or the UK for example, it's enormously useful and powerful… (Activist - Edmonton, Alberta)

> The lessons of collective action by workers have traditionally been learned on the job and in the streets…. Any non-formal, structured education programs remain, even today, secondary to the learning that members gain through voluntary engagement in action. (Martin, 1998:72)

These two quotations, each from Canadian labour movement activists, help introduce and ground several of the central themes of this paper. That is, they introduce the potential of computer technologies to aid in the activity and development of the labour movement, and they remind us that the heart of labour movement learning has always been rooted in the 'informal' and the everyday forms of collective action and participation. Online learning is conceptualized as having many variant dimensions: including formal and informal structure; individual and collective planning; cognitive as well as social elements. In this project I asked, how did activist's broader life and labour movement activity affect their participation and informal learning? Are there less formalized goals that were or could be achieved in online learning environments? Can online learning be used to facilitate the goals of the labour movement generally in the context of informal online and offline learning? Before moving on to a discussion of the data, however, it is important that the project be situated broadly in terms of type of 'social learning' analysis it takes up as well as a more fundamental question: how are the labour movement's interests in online learning unique? Answering these questions helps to situate this study in a rapidly expanding body of literature in the area of online learning and distance education.

While its roots are arguably over a quarter of a century deep, it is over the last decade, with the development and flourishing of the World Wide Web, that serious discussions of online learning amongst educators has exploded. Recently, reports from Europe, the UK, Australia and South African trade union educators (see Sawchuk and contributors, 2001) suggest the ongoing relevance of more deeply understanding the relationship between labour education, online learning and informal networks of activity. In Canada, rank-and-file workers and unionized workers in particular have shown significant interest in as well as an often under-estimated capacity to make use of computer technologies with a variety of communication and educational purposes in mind (Sawchuk, forthcoming a). And, rooted in their own perspectives and goals, discussions of online learning has spread to Canadian labour educators.

As Taylor (2000; forthcoming) tells us, labour educators in Canada have had a long and intense interest in the use of educational technology that can be traced back to the 1930's with the use of radio and film strip. By the 1970's the Canadian Labour Congress (CLC) had developed a substantial audio-visual department within its Labour Education and Studies Centre. According to Taylor, perhaps the most successful use of educational technology prior to the computer-age was to be found in the labour-based radio programming and Trade Union Film circuit produced by the Workers' Educational Association (WEA) in the 1940's. By the 1980's and 90's Canadian labour's experience in drawing on educational technology resulted in a Canadian union, the Canadian Union of Public Employees (CUPE), being the first in the world to develop a union-based computer-based communication and later online learning system called 'Solinet'. Characteristically, with the explosion of the World Wide Web , CUPE again led the way for unions in Canada with the linkage of its Solinet network to the Virtual-U conferencing system. It was in fact the Virtual-U system that was utilized to examine the linkages between online learning, activists' informal learning and the Canadian labour movement in this research.

The purpose of the *Informal Learning Practices within Union-Based Telelearning* project was to investigate the informal learning practices amongst Canadian trade union activists surrounding the trial use of new online learning technologies as part of the CLC's labour education and training activities. Trial workshops for labour activists were used to generate the project's data. The data included transcripts of these online learning workshops, online surveys of participants on their activities and experiences within the workshop, interaction analysis of online behavior as well as telephone interviews with participants. The survey and the interview samples largely involved different sets of participants while the interaction and thematic analysis of the entire workshop transcript involved the all participants. This workshop involved 49 labour activist/educator participants as well as two facilitators. The response rate for the survey was over 30% (n=17) and interviews were conducted with 12 participants. The telephone interviews specifically involved a stratified sample of participants based on key variables amongst participants in the workshop: participation level during workshop; gender; region of Canada; and large city versus small urban or rural settings. Taken as a whole the data allowed a sound mix of depth and breadth of analysis as well as a form of triangulation that allowed opportunity to verify conclusions. All data was drawn from one particular workshop entitled 'Organizing for May Day Celebrations' selected from a series of online workshops for labour educator/activists developed within a larger, related research initiative entitled "Union-Based Telelearning project" (2)

Together these data allowed detailed understanding of the range of informal practices that accompany the more formalized online course delivery that are most useful for trade unionists. Core research questions revolved around the following:

- the nature of informal/formal learning linkage in online learning environments;
- whether online educational technologies could be useful for the labour movement;
- the nature of the intersection of "off-line" with "on-line" communities of practice within the labour movement;
- the use of a combinations of educational resources to facilitate trade-union learning;
- the forms of software architecture used to facilitate the delivery of labour education for adult, trade-union learners;
- the level of match between online learning outcomes and the educational principles and cultural values espoused by trade unions.

I focused on the relationship these learning practices in general, and online learning specifically, and related these to the educational principles and cultural values espoused by trade unions such as mutuality, collective action and solidarity. The analysis of the data drew on critical reflection on a

variety of bodies of literature including computer-mediated learning (e.g. Nardi, 1996), online facilitation (e.g. Feenberg, 1989; James and Rykert, 1997; Palloff and Pratt, 1999), theories of Human-Computer Interface (e.g. Bodker, 1991), and the "Collective Resource Approach" (CRA)[3] (e.g. Ehn & Kyng 1987; Ehn, 1988; Bansler, 1989; Kraft, 1992) and "Democratic Rationalism" (Feenberg, 1999) approaches to technological development as well as labour and adult education research. The project specifically built on previous online, labour education research by Taylor (e.g. 1996a; 1996b; 2000), Briton and Taylor (e.g. 2000), as well as Sawchuk (2000; 2001; forthcoming a; forthcoming b). In general, the project provided important information to labour educators but also contributed to more general adult education and online learning literatures. As I'll outline below in the summary of findings, the project provided important new information on informal computer-mediated learning within the context of trade union education.

One of the basic arguments underlying this research is that the labour movement has a unique interest in online learning, how it functions, its outcomes and its future development. As Briton and Taylor put it,

> From the outset, the communication and education-telelearning tools we were interested in developing were those that not only enhanced individual learning opportunities but also fostered collaboration, cooperation and contributed to community - in particular, the learning opportunities of workers' and the global community of organized labour. (2000:3-4)

Some of the dimensions of this unique interest include the fact that, for the labour movement, explorations of online learning requires a firm grasp of its own roots and traditions in the area of education, learning and social action. In addition, unlike the schooling system, the labour movement's interest in online learning is not governed by a concern for credentialization. Rather the labour movement looks at online learning in a way similar to that expressed by distant education writers Henri and Kaye, as "the development of 'knowing how to do' and 'knowing how to share' [that] is not restricted to the simply transmission of knowledge" (1993:29). As other online learning scholarship has noted, learning in this context cannot be understood as knowledge transfer but as 'engagement in practice, in which people deal with dilemmas and problems, make use of tools, share ways of doing things, and utilize previous knowledge…" (Calvani, Sorizio and Varisco, 1997:272). Again, for the labour movement, this type of learning includes a process in which workers make meaning of their lives 'as workers' and thus the labour movement is interested in ways online learning can contribute to an expansive proletarian narrative in the context of local, regional, national and now globalized capitalism. Online learning can form a part of the labour movement's capacity to meet the challenge of 'distance' which is necessary for effective responses to national as well as international issues. This motive for overcoming the challenge of distance is different from the purposes of expanded commodity sales or heightened control over others. It is a concern to overcome the challenges of distance for the purposes of democratizing communication and ultimately collective, democratic action. Online learning in the labour movement heightens the need but also provides opportunity for working-class people to collectively meet the challenge of computer access/use in all its forms (cultural as well as material). In this way, no analysis of online learning amongst subordinate groups cannot begin without a firm understanding of the barriers and possibilities of technology and learning amongst subordinate groups.

Following up on the final point above, according to Statistics Canada's General Social Survey dealing with internet use (Statistics Canada, 2000), with an estimated 13 million people (53% of those aged 15 and over) using the internet in 2000 (over three times the 1994 rate), and a further 27% of non-users expressing an interest in becoming users, the interest in electronic communication and online learning in Canada is remarkably high. However, the labour movement is extremely diverse, and key constituencies important for the labour movement to flourish including those with lower income, those with lower formal education, and women, experience consistently lower levels of computer access and use. Among individuals 20 or older, 13% of those with less than a high school diploma used the Internet, compared with 79% with university education (Statistics Canada, 2000).

In this study computer access and use was not limited to simply home computer ownership. As we'll learn more about below, computer use occurred across work, union hall, district labour council as well as in the home. In terms of computer access and use in the workplace in Canada generally, Statistics Canada (11-001E, 2001) reports that one-quarter of all workplaces made major investments in new computer technology (>$2,500/worker) affecting more than one-third of all workers in Canada in 1999,

though "formal training comprised only a small part of the overall computer learning activities" (p.6). Workers are increasingly encountering computer technology in the workplace though it is unclear how exactly this affects discretionary access and use. At same time, at home, as reported in American Demographics (AD), not only does web-based computer-activity continue to soar generally, but the class-based demographics are undergoing a significant shift as well. The average socio-economic status, educational attainment of users is falling, and blue-collar use is accelerating.

> True, the clusters with the greatest access to the Internet are still home to early-adopting, upscale Americans. But the cluster whose surfers spend the most time online at home left some analysts agog: Mid-City Mix, a working-class, African American lifestyle whose residents like to chat, exchange e-mail, and hang out at entertainment and sweepstakes sites. The other top clusters for online longevity include Norma Rae-ville and Back Country Folks, characterized by people with lower incomes, modest educations, and blue-collar jobs. Norma Rae-ville residents, who are predominantly black, single, and concentrated in the South, spend 12.6 hours online each month, 26 percent more than average Americans. As a simple rule of thumb: The lower the user's income, the longer he or she is likely to spend online.
> **http://www.demographics.com/publications/ad/01_ad/0103_ad/ad010301.htm).**

> A survey for America Online and American Demographics indicates that social relationships are actually strengthened by online use (see Forecast, December 2000). Harris Interactive has found that 48 percent of people say they communicate with their friends and family more often because of the Internet, compared with only 3 percent who said that their contact decreased.
> **http://www.demographics.com/publications/ad/01_ad/0103_ad/ad010301.htm).**

At the same time, echoing other Statistics Canada reports, there remains a 'digital divide' with recognizable class dimensions. Reddick et al. (2000) report:

> From 1997 through 1999, higher income households were three times more likely than lower-income households to have home access.... [B]arriers and obstacles to access are aggravated for those in the lower social classes who have less resources or skills available to overcome them. (Reddick et al. 2000:1-2)

Reddick et al. (2000), in fact, predicted a 'plateau' effect would occur at the turn of the century resulting in the types of relative growths figured in the Weis report (2001). However, both of the surveys provide a description rather than a explanation of the role of computers and computer-based learning amongst working-class groups, and both largely pre-figure the uses that this online learning can be oriented towards.

Turning to discussion of online learning specifically, in their review of online learning research Briton and Taylor (2000) indicate the need to move beyond mere frequency and extent of use statistics of participation can tell, "what we needed was not more data, but an analytical model that would help us understand the relationship between context and [online learning]..." (p.20). Moving towards a useful analytical model in these terms requires an explicitly social analysis. The communities that make up the labour movement as well as individual workplace communities, both virtually invisible in the context of mainstream computer access and use literature, are central to developing a clear understanding of online learning amongst workers. Recent findings reported in Canada (Sawchuk, forthcoming a), the UK (Hakken, 1993) and the U.S. (Schön, Sanyal and Mitchell, 1999) indicate that the effective use of computer technology by working-class groups is intimately related to the relationship this use has with community life[4]. Indeed, understanding the partially divergent findings above and recognizing the range of unique interests that the labour movement has in online learning is in many ways the foundation of this research project. It explores informal learning in relation to the online communications and it requires a close look at how computers are actually used by working-class people as a socially situated practice, one rooted in forms of collective, communal relationships.

Highlights from the Survey of Workshop Participants

The key themes that emerged from the survey data provide important lessons for the future development of online learning in the Canadian labour movement, and helped to orient the telephone interview schedule. First, although a self-selection bias cannot be discounted[5], the activist/educator involved in the workshop had a computer literacy levels (understood as previous experience using computer-based communications) exceeded the general population in Canada. Prior to the online workshop, computer communications was not new to any respondents and the vast majority had well over two years experience. There was no gender differences in this regard, nor were there differences related to participants living in rural and small city centres vs. large city centres.

In terms of the technical features of the hard- and soft-ware,though all participants found video and soundthough all participants found video and sound feature of the online learning experience interesting, the majority felt these features were not necessary

for the educational experience. Graphics (i.e. still pictures) however were thought to add to the online communication and were consistently rated as an important element of the process that should be expanded. Here people felt pictures of one another, still pictures of events discussed, and so on helped the communication process (see interaction analysis below). Likewise the inclusion of additional web-links was very important as well.

One of the most important themes to emerge from the survey data related to issues of access and use. Amongst respondents both home and workplace computers were used to participate (see figure 1). The majority had access to home or home as well as workplace computers for the purposes of workshop participation while just under a fifth (17%) had access to work computer only. In addition, factors that significantly affected respondent's ability to participate in workshop included family life, work, activism. Work and activism were thought of as the most significant barriers. Taken together these material factors affect practice both in terms of space and resources and in terms of time to meaningfully engage in the online learning experience are issues that must be seen as relevant to understanding how online takes place amongst unionists. Activist/educators had to actively strategize around the when and the where of online learning, and these factors were in fact anticipated to be even more important were the workshop to be of longer duration and/or were they to want to engage in workshops on an ongoing basis. In other words, these material factors would become increasingly important if online learning was to be used as an ongoing educational activity.

The other major theme to emerge from the survey data dealt with the forms of participation and communication that occurred in the workshops. Participants indicated that communication with other participants as well as non-participants beyond the formal structure of the workshop was crucial. The workshop provided about half the participants with an introduction to people they didn't know but communication amongst these 'new comrades' moved beyond the workshop. Though they cannot be isolated from the more formal aspects of the workshop set by the facilitators, it was the informal dimensions of learning that were the primary focus of this research. This produces something of a fine, possible artificial line, particularly in the context of this workshop since its overall method was based in emergent discussion rather than a planned curriculum such as one might see in a typical online educational course. In any case, as figure 2 shows it was this emergent discussion that was most valued by participants. Respondents to the survey also indicated that informal learning on their own was important in order to keep up (figure 3). Overall ranked the most important factors in their learning as follows:

1) responses of other participants,
2) responses of facilitators,
3) trial and error (technical matters),
4) offline communication with someone not in workshop,
5) online information not from workshop,
6) unplanned communication with someone not online and not in workshop,
7) online communication with someone not in workshop,

According to the survey data, with one exception,all respondents indicated the experience as valuable both in terms of itsknowledge development interms of May Day activities around the country, and for its ability to add to an understanding of the potential of online learning for the Canadian labour ovement. Indeed, with one exception all respondents indicated an interest in learning about facilitating online learning as well.Further analysis of the survey material is available in Sawchuk (forthcoming b), however a final key area of discussion which I'll explore further in the discussion of interview data below involved survey respondent's concern about how learning in the virtual world could be translated into useful action offline, in the real world.

Highlights from Interviews with Workshop Participants

Of course understanding the potential and pitfalls of online learning for the labour movement requires a firm grasp of its roots and traditions. In listening to interviewees, it became apparent that the most productive way to proceed is to seek to enhance the face-to-face labour movement culture with selective use of technology. The heart of labour education today, let alone labour education historically, is rooted in *viva voce*, literally by the living voice of participants. This, at once, suggests potential problems related to the largely textual character of current online learning technologies which may not necessarily find resolution within emerging broad-band capacities. As outlined more extensively in Sawchuk (2001; forthcoming a; forthcoming b; forthcoming c) the semi-structured telephone interviews with labour activist/educators participating in the workshop allowed several important theme areas initiated in the survey analysis to be clarified and probed. It also allowed several new themes to emerge. Below I illustrate key findings in these data that focus on: the role of informal learning; barriers within online learning amongst activist/educators; understanding the interaction dimensions of online learning for the labour movement; the functions of online learning in the labour movement; and, linking online learning with offline action.

The role of informal learning. Informal learning has always been a necessary mainstay of educational practice for subordinate groups such as the working-class. While organized forms of educational activity are available within the labour movement, it remains an understood truism that the heart of labour and working-class learning is in the union meetings, union events, struggles on the street, picket-line, in the community and workplace (e.g. Spencer, 1994; Heron, 1996; Taylor, 2000; Sawchuk, forthcoming a). The shifting composition of the labour movement including rising levels of formal education comparable to those in Canadian population generally have hardly changed this fact.

In research interviews, activist/educators involved in the online workshop highlighted the importance of informal learning in the labour movement and suggested a potential misconnect between the learning culture of unions and the virtual, communication space provided by online learning.

> It will not serve a useful purpose if people are just sitting there staring at screens and they don't know who they're talking to… The traditional way of doing things, getting together,

> getting in the room, feeling the tension, feeling everything, what people, you know you've been to conventions yourself, you can see the emotion and everything, you don't see that on-line. You don't see people's faces, and I know that's important to me, you know? Computers are a tool, they have a place, just like the tools that came before, [but] they're not to be substituted for what we really need. (Activist - Peterborough, Ontario)

> Being in a group to learn, for me that's better… because even if you go for coffee with three or four people participating, you talk about 'Oh I did this' or 'I did that' or 'I found this screen.' You know that kind of thing is where you get a chance to say 'Jeez I really had trouble this way' and somebody else says, 'Well why don't you do this.' That's what I found lacking in this workshop. It was not so much the national nature of it, but the disconnection from the people. (Activist - Winnipeg, Manitoba)

Activists consistently felt that online learning could be a useful tool if it was explicitly designed and used to compliment rather than replaced existing traditions in the labour movement. Comments from activist also suggested that traditions of learning in the labour movement will not transfer to online learning environments without the careful attention of both workshop designers and participants themselves. The critique of labour movement online learning experience in comments such as the ones above highlights the need for a better understanding of the dynamics of informal learning in virtual space as well as the relationship between thislearning and practical activity offline.

Critiques aside, while the workshops were intentionally designed with adult education principles in mind - such as beginning from participant's own experience and the development of emergent learning themes - collective, participatory forms of informal learning and knowledge construction were said to have occurred through online participation, e.g.

> [This] guy from BC was thirsty for information and people started providing it to him, and that gave us all the resources. To me, that's an example of where these on-line workshops really do work. Someone has an interest or concern and they're learning about something and other people contribute to it, and then the rest of us participate in that process by seeing how those answers work. (Activist - Edmonton, Alberta)

Examples such as these were more or less typical. They describe how patterns of information sharing that emerged in unplanned ways in the online learning environment resulted in some of the most useful learning experiences for activist/educators.

An extension of this concern about the character, dynamics and purposes of the informal dimensions of online learning was discussed in research interviews in the context of distinctions between computer-mediated communication (CMC) generally and online learning as a specific form of communication. Labour movement activists were largely uncomfortable with an artificial barriers between these communicative processes. Stimulated by the knowledge and experience of online learning there was an interest in seeing these two areas more tightly interwoven in order to link everyday and informal learning with the stream of information available in the online workshop as well as other labour education initiatives.

Key barriers within online learning amongst activist/educators. Participants also helped identify the kinds of barriers that shape the online learning process amongst labour activist/educators. Combining the interview findings with the survey data we see an even clearer picture of the effects of scarce resources of time, space and human energy amongst labour activist/educators.

> I just think it's a big, endemic problem with the labor movement, people are already overworked and over-stressed, and I don't think there's any technological things for that, you know, you'd end up just spending more time over the keyboard, and, I mean already doing stuff by email certainly facilitates all that work already, but you know, all of us come in the morning, to minimally a dozen messages, if not twenty or thirty of them, so by the nature of your day if you say maximum I could do an hour of emailing a day, loads of things drop of the bottom of it, and I don't see anyway anybody else can help fix that problem. (Activist -

Edmonton, Alberta)

As I discuss below, online learning can be streamlined with explicit training in effective means of participation, but more importantly here we should note that some of the most valuable learning occurred amongst activists who faced the greatest barriers of time and distance. These were participants in more isolated locations such as Northern Ontario, rural Saskatchewan, the more isolated areas of British Columbia and so on. These were activist/educators who operated away from the major urban centres, however they were also women activists, particularly those with children in the home who also were juggling prime responsibility for work in the home.

> I think for the smaller cities it's an issue because of the fact that those who want to participate are not able to as the courses aren't available in their towns. If enough people aren't taking them then the course doesn't go on… I didn't find [the workshop] isolated you at all, if anything it made you feel less alone… Well the best possible scenario would be to in a classroom setting, but because of the fact that all of these commitments are there and you've got your kids going to school and stuff for me it's better to do it on-line like the way that we did it. (Activist - Eliot Lake, Ontario)

In addition to these substantial barriers to participation in labour education, it should be recognized that activists in general remain, as they have been historically, over-burdened and over-extended with responsibilities. As one person put it, "there are not 76 hours in a day. Haven't figured out the solution yet" (Activist - Toronto, Ontario). In this way, the broader structure of people's everyday lives as a whole deeply affected how well educational and communication tools will work for them. Nevertheless it was clear that as a substitute for traditional labour movement learning, online learning is a poor one. However, where the traditions of face-to-face educational activity and direct action are more difficult to organize due to the lack of time, space and other resources, the addition of online learning was felt to have the potential to make a particularly important contribution to the work of activist/educators.

Recognizing the current online learning technology for what it is, i.e. asynchronous textual communication, raised a number of basic but important questions amongst activists in our research. In a variety of direct and indirect ways, echoing basic literature in the field of online learning, activist indicated that reading, writing, typing and functional levels of computer literacy were essential to the success of the medium. The absence of any of these produced significant barriers to effective participation, though at the same time participation could also be seen as a productive way to developing these skills. To this core list of barriers we can add the effects of people having access to widely varied types and levels of soft- and hard-ware. Paralleling the survey findings that advanced video or sound capabilities weren't essential to the educational value of online learning, most interviewees recommended the use of 'lowest common denominator' technologies. Organizations such as the International Labor Organization in Europe have been quick to seek a remedy to this latter barrier with development initiatives such as their recent 'Course Reader' software (Belanger, 2001). However in general it can be said that any progressive programme of online learning. Interviewees felt that this issue needed to be addressed head-on in order to avoid simply reproducing (indeed accelerating) patterns of exclusion which run in opposition to the purposes of the labour movement and affect the most vulnerable most deeply.

Beyond technological and computer literacy capacities amongst participants, the extensive reading and writing requirements of this form of online learning also was discussed as something of a barrier. Most interviewees talked about being 'blown away' by the density and mass of the discussion, and having to develop "survival skills" to deal with the amount of material to read and respond to.

> Oh yeah, they would, very, some people would suggest, some people had expensive equipment, you know, obviously, at their disposal, yeah some of them had pictures, we could download wonderful pictures that they would either scan or located, I don't know I'm not a computer technician, but they would tell you and then I would always go to that site, and you'd learn quite a lot, they had the Winnipeg General Strike pictures, and it was really quite nice. (Activist - Peterborough, Ontario)

> Although there's some people now that are super technologists, they send you an email with a page clipped out, and I admire them for their ability to do that, but not everybody can do that kind of thing.... Well, you can sort of make a comparison here between a live conference and a virtual conference, where in a live conference they would hand out material, they would give you lots of resource material to read on your own, and some stuff they want to draw your attention to that would be part of their package, and some stuff was, you know here's an article or a series of articles that you may want to check out. That's very difficult to do by computer... there was an awful lot of reading that didn't make a lot of sense, but there was an awful lot of reading to be done. So people take the time to write in their opinions, and some of them were short and to the point... [but] some people just got keyboard diarrhea. (Activist - Winnipeg, Manitoba)

In this context, skilled forms of participation and explicit guidelines for communication could be seen as important means of getting through online material. These could include better indexing or 'threading' systems and training in their use so participants can get to the material they want and not have to 'wade through' the materials they don't. This also suggests the need for attention to how the design of online communication requires a deep respect for the complexity of the communication process we take for granted in face-to-face talk.

Interaction analysis of participation.

A less obvious barrier to participation concerned the notion of "communication literacy". As authors like Winecki (2000), Feenberg (1989), Bakardjieva and Feenberg (2000) and others have noted, participants in online learning interaction are quick to feel discomfort and confusion in these environments because of the relative dearth of communicative information that we take for granted in face-to-face talk. Issues such as topic continuity and the development of shared understanding of the situation are problematic in online learning and cannot be fully addressed strictly by better facilitation, clear expectations and conventional workshop planning. While these areas cannot be ignored, what is still missing is an understanding amongst participants for the unique needs of asynchronous, text-based communication. Specifically, participants need a basic appreciation for, though not necessarily a comprehensive understanding of, the mechanics of interaction, turn-taking, explicit framing and re-framing of the situation, and so on. Researchers in the tradition of Conversation Analysis beginning with Sacks, Schegloff and Jefferson (1974) and now extended to online communications (e.g. Winecki, 2000) specifically demonstrate this taken-for-granted complexity and the ways that breakdowns can occur. Feenberg explains it this way,

> Engaging in face-to-face conversation involves complex forms of behaviour called 'phatic' functions by semiologists. When we say "Hey, how's it going?" we signify our availability for communication. We usually close the conversation with another set of rituals, such as, "I've gotta go. See you later." Throughout our talk, we are continually sending phatic signs back and forth to keep the line open and to make sure messages are getting through. For example, we say such things as, "How about that!" or reply, "Yes, go on." Looks and facial expressions tacitly reassure interlocutors that they are still in touch, or on the contrary carry a warning if the communication link is threatened by technical difficulties or improprieties. All such phatic signs are bypassed in computer conferencing. Even standard codes for opening and closing conversations are discarded. (Feenberg, 1989:23)

The absence of so many of the tacit signals and the ability amongst participants to re-invent the machinery of interaction results in a significant barrier to effective participation. Face-to-face interaction is extremely fragile and online interaction is much more so. But more than this, as the original work of Garfinkel (1967) demonstrates so well, breakdowns in fact will often involve a crisis of 'interpretive trust' producing a sense of 'moral violation' amongst participants as the foundation of human communication is breached.

Building on this theme of an appreciation for the capacity and fragility of online communication, in the interviews as well as in examinations of the postings within this research it became clear that

participants who had expectations of something more than a basic information exchange, consistently responded that they needed 'to know' the other person, have a sense of 'where they were coming from', and 'trust' that that there were shared expectations for things to proceed smoothly. Specifically, analysis of postings revealed barriers in the form of ambiguity of communication and a lack of shared framing of the situation. Bakardjieva and Feenberg (2000) suggest that the problem of the missing cues can be partially resolved through the use of priority indicators, notifications, reminders, feedback mechanisms, tools for participation tracking and statistics, and so on, but they go on to indicate the importance of stable identities for 'authentic communication' as well. Taken together such recommendations fit fairly well with the kinds of comments provided by the labour activist/educators in the workshops:

> Well I find that it's a barrier because, I don't mind the on-line thing… I find that being an interactive person, I like to interact with other humans, you don't get the same feel of the individual… I'm not a pen-pal type person anyway, and so it's kind of nice, even later on, if you did get together with people for a workshop, then, even after, we know each other, we know what we look like, there's something important to that, to me anyway, and you can then maybe communicate better on a course with people that you know afterward. (Activist - Peterborough, Ontario)

> I know a lot of the people personally so to them I was interacting email wise differently then the people I didn't know that I had never met personally because I could sort of read between the lines on what they were saying, I knew their intent better than the people I didn't know…. when it was people I didn't know, I'd never met personally, there was a certain isolation to it, there was a certain clinical approach to it, you know here's just letters on the board, but people I knew, I sort of knew what they were talking about, you know I could visualize that person talking, you know, whether you could do that with their picture up on the thing every now and again, that I don't know. It's going to be a difficult one to overcome, but it's something we've got to seriously look at. Because there has to be a way to break that isolation barrier when a person just participates, well even look at what we're doing now. (Activist - Winnipeg, Manitoba)

Beyond attention to software design that recognizes the informal, communicative dimensions of the online learning process, practically speaking what's required is that participants be given tools to understand and maintain interpretive trust. These issues then should be seen as having important, practical value for the use of online learning in the labour movement and elsewhere.

Perhaps a broader point on the role of communication in labour education involves the relationship that online learning has to the communication culture of the labour movement itself. As many writers have noted in the context of both historical and contemporary analysis (e.g. Thompson, 1963; Palmer, 1987; Montgomery, 1987; Martin, 1995; Heron, 1996; Stephan-Norris and Zeitlin, 1996), the establishment, reproduction and development of the labour movement has always been rooted in a predominantly oral culture. While written documents can and do play important roles in organizational life of trade unionists, in North America in the last 50 years particularly, the heart and soul of the labour movement still seems to remain dependent upon oral exchange. Recounting his work in the labour movement, Martin (1995) has put it,

> I had begun to see the written word as a last resort for internal communication. I came to realize the weight of history in this stance. In the early days of Canadian unions, activists, communicated orally among themselves because their work was a 'criminal conspiracy in restraint of trade.' For outside interaction… written text is central. Collective agreements and labour legislation - formal, dense, and detailed - dominate the encounter of unions with employers and governments…. On paper, union input tends to be precise and defensive; in verbal communications, off the record, unionists are more eloquent and spontaneous. (p.40)

Expanding on this theme, we can look more closely at the differences between oral and written communication in the context of online learning in the work of Feenberg. He discusses oral and written traditions in terms of repeatable and retrievable texts respectively. The key distinction between them is that whereas retrievable texts (such as a book or a diskette) allows the potential for individual control,

repeatable texts require the presence of other human beings:

> Texts 'stored' in human memory, however, are 'accessed' through 'repetition' or performance. In cultures which rely heavily on repetition of basic texts, the function of performance is frequently assigned to special individuals, and access to the text is not under individual control but regulated socially through participation in public functions and audiences. (1989:24)

Both forms of communication culture have strengths, and of course it is a mistake to see them as completely distinct. Nevertheless, it can be noted that written culture based in retrievable texts offers individual choice and broad, albeit largely one-way, dissemination of information. Oral cultures and reliance on repeatable texts are associated with the socialization of information use, the potential to develop solidaristic relations of information exchange and collective forms of informal learning. Feenberg goes on to suggest that online learning straddles the line between these oral and written cultures to, potentially, offer the best of both worlds in several ways. As interviewees seemed to suggest as well, online learning fits with the spontaneous, collective and even emergent nature of oral exchanges that is the heart of the labour movement as well as one of its most personally satisfying aspects. At the same time, it provides a potentially retrievable record for future reference while possibly helping to overcome the barriers of space and time in many ways.

Functions of online learning and communication for the labour movement.

Under this broad heading, the first theme to be noted arises directly from the previous discussion of the labour movement's unique interest in online learning technologies. As Canadian labour historian Craig Heron (1996) describes, the labour movement has always had an interest in class consciousness as both a 'resource' and a 'project'. Consciousness of class processes and one's position in them are a resource upon which solidarity and collective action is based, and the building and spreading a critical consciousness of class relationships is also an ongoing goal or project for the labour movement's development. In exploring online learning then it makes sense to examine the degree to which the medium has the capacity to contribute to class consciousness or what could be called a 'working-class narrative', i.e. a means of understanding one's activities vis-à-vis story-telling and oral culture as part of broader class processes in society. In a recent paper examining online learning in the labour movement, Briton and Taylor contextualize the importance of online learning technology for more than simply delivering more information and more educational programmes to union members. They discuss the potential for online learning technologies to contribute to the very principles and values of the labour movement as a whole.

> The question, then, is not simply one of identifying the [online learning] technologies that result in high participation levels, but of identifying the set of minimal beliefs that provide the foundation for learning and [the technologies] that best facilitate the cooperative and collaborative ideals of that learning community. (Briton and Taylor, 2000: 14)

As with labour education generally, online learning is not organized around the need to accredit individual skill or knowledge. It is voluntary, social-movement based learning which, as we've seen above and elsewhere, consistently faces the pressure of relevance in the context of the jam-packed schedules of activist/educators, and limited resources of the labour movement as a whole. Relevance, however, can come in several forms: relevance to direct action and organizing; as well as relevance to the production of the kind of meaning and understanding in people's lives that energizes beyond the immediate context. Interviewees in this research consistently spoke of this process of meaning-making. One activist put it this way.

> When people suddenly discover that there are some roots to [the labour movement], because of course it's never taught in school, they really find that fascinating... It's a funny sustaining kind of thing, it's less that it helps your activism instantly, but it does I think help in the long-term as people find the energy to keep going. (Activist - Edmonton, Alberta)

The ability of activist/educators to stay engaged in their work as activists and to find and create

relevance through this engagement is generally rooted their commitment to trade unionism as a social movement. What we see however is that this meaning-making is personally energizing and can be carried out through the use of online learning environments. A recent article by Garrison (2001) suggests that online learning can contribute to this 'affective', interpretive side of educational and communicative processes, and thus applied to the context of labour movement activism, we can begin to see that online learning can play an important role in the development of greater class consciousness. The production of a proletarian narrative is central to this process, and it helps to create the type of mental 'distance' from one's life necessary to not only understand it critically but to give it greater positive meaning.

Beyond the use of online learning to contribute to the development of class consciousness activist/educators interviewed indicated that the medium could be vitally important to furthering the principles of union democracy as well.

> We've got email for everybody so you can send out stuff right away and not only that, that's organizing and educating right there, if you can get the information out to people you're talking about meetings, you're giving them information prior to the meeting so that they know what they're going to talk about when they get there, our local has a website… and then people can go and see what's happening. We get enormous amounts of email from every social action… I think that it helps the leadership better define their goals, and so that's worthwhile in the sense of providing more education for the membership as well. (Activist - Sudbury, Ontario)

Making use of websites, online communication and online learning in close connection with more traditional organizational and educational activities in the labour movement could be a powerful force for informating members and leadership alike promoting open and informed debate and a more participatory form of union democracy.

Likewise online learning and communication were thought to be a relevant tool for organizing the unorganized. Comments by interviewees paralleled issues raised recently by Joseph (1999). Drawing on key labor law cases in the United States (*E.I. du Pont de Nemours and Co., 311 NLRB 893* and *Timekeeping Systems Inc. v. Lawrence LeinWeber, 323 NLRB 30*) the author outlines,

> [w]ith unions increasingly using the internet to strengthen their hand in organizing, it is not surprising that employers are seeking legal roadblocks to limit these efforts. Indeed, employee's use of company e-mail for union activities has created new questions and legal challenges for unions, employers and workers alike. The use of e-mail in organizing campaigns offers many advantages - especially the ability to quickly reach a large number of people…While so far the NLRB [National Labor Relations Board] has not directly addressed the issue of a union's right to organize through company e-mail, the related rulings are encouraging, in part because they have shown that an employers attempt to exclusively restrict an employee's use of company e-mail for union-related activities is a violation of the employee's rights under the NLRA [National Labor Relations Act]. (p.1-2)

Though pushing the scope of the workshop activities and this research project, clearly online organizing directly addresses the informal dimensions of online learning. Such issues represent the next generation of the study of informal learning in the online world, as well as problematize the distinction between communication and learning per se. When asked directly, interviewees in the research largely rejected any clear distinction between online learning and online communication. Several went so far as to say that the separation between the two was unproductive for the purposes of learning in the labour movement.

> I: Can I ask you, did you draw a distinction between educational initiatives and broad communication, like labor communication initiatives?
> R: I don't philosophically and personally, I think the labor movement draws an incredible distinction, and it's not one I'm terribly fond off, it's basically the difference between education and propaganda. (Activist - Edmonton, Alberta)

Maintenance of a distinction between communication and educational policy should be seen as a barrier to understanding how learning, in all its forms, is implicated in the development of the labour movement. What activist such as the one above indicate is that the arbitrary separation of the two narrows the potential of online learning/communication to make a real contribution to development of the labour movement into the 21st century.

Linking informal online learning with practical action offline.

I've begun to outline the different ways that informal dimensions of online activity can be conceptualized and studied, but in general terms we could say that online informal learning occurred in the 'crevices' of the formal structure provided in the workshop. To conclude this section I want to return to a key theme of the research identified at the start, namely, how can online activity be linked to real outcomes for the labour movement. Interviewees themselves outlined that for online learning to be useful participation had to translate into practical action beyond cyber-space.

> You know, and you don't have to learn a ton of things, although I have to admit I learned quite a few things, but you know [it] was good because then I shared it with my fellow activists. (Activist - Peterborough, Ontario)

> I got some interesting information but there was a major failure in the fact that I couldn't share it with the other activists in Sudbury and I saw that as very important. I mean you're going back to the core value of the labor movement. You're in a meeting, you're talking with other activists, you're sharing information with them, you know you're trying to get it out to people and use that as a tactic for organizing… (Activist - Sudbury, Ontario)

The insertion of experience and information gleaned from the workshop needed to be easily transferred to the offline world. The solution that emerged from the perspective of interviewees revolved around the creation of 'tools' that could be (formally or informally) created within online activity, and then transferred to the offline world. Workshop facilitators made important attempts to organize the creation of such tools in the form of summaries, but more and more creative means of transference need to be discovered. Participants themselves made attempts at moving their online learning into their local contexts but mixed results were seen. Many created reports of ideas, news and tactics and took them to their local labour councils, workplaces and unions, e.g.

> You'd see an article [in the workshop] and then you'd bring it up, say at work or something, mention this article and then people expand from that on what things or experiences they have heard about and so conversation gets going. (Activist - Prince Albert, Saskatchewan)

Others, such as one activist from Eliot Lake (in Northern Ontario), transformed these ideas into tools to educate during a local strike support barbecue commenting, "I think basically my ideas came from the ideas that were floating around out there through the workshop itself." The ongoing challenge however remains: what are the full range of options for the development of more productive linkages between online learning and labour movement action.

Conclusions

The conclusions and recommendations of this research are fully outlined in Sawchuk (forthcoming b), however here I can highlight key theme areas in relation to the research questions posed from the beginning. The study explicitly outlines a range of ways of conceptualizing and reporting on the nature of the informal dimensions of online learning. We saw, for example, how the unplanned online discussions were critical to the success of workshops. We saw how the use of resources from outside of the workshop played a role in the learning that went on, and we saw how the taken-for-granted, tacit dimensions of communication were both part of the learning process and a source of considerable struggle for participants. Features of the software architecture itself can play an important role in successfully overcoming barriers of communication according to the literature and the analysis provided

by this research. In general terms, there is strong evidence to suggest that online learning can be a valuable addition to the education/communication capacity of the labour movement, and that an important part of this positive contribution revolves around a recognition of informal learning, the tacit dimensions of participation, the broader context of participants lives, and the linkages between the online and the offline world. Focusing on the different informal dimensions of the learning process helped us understand that online learning perhaps offered the 'best of both worlds' in terms of written and oral learning cultures within the labour movement. And finally, as was indicated, there is relatively strong evidence provided by this research that online learning technologies can be an important addition to, not a substitute for, existing practices of the labour movement.

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ENDNOTES

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2 Principal Investigator of this project is Jeff Taylor (Athabasca University, Alberta, Canada).

3.CRA, sometimes called the Scandinavian approach, attempts to reconcile the development and use of specific technologies with the needs, perspectives and values of working people and their unions (see Kraft, 1992 for a discussion of CRA in the context of North America).

4.I suggest it is an exploration of actual practice with an eye toward the existence of more or less stable community structures (e.g. local union, stable paid-work community, neighborhood life and so on) that explain the difference between Reddick et al's notion of Type 1 (so-called 'near-users' who have interest and skill but face material obstacles), Type 2 (have basic skills but see little benefit and face material obstacles) and Type 3 categories of non-users (lack of basic skill, see no relevance and face significant material barriers) (see page 3 of Reddick et al, 2000).

5. It is doubtful that those completely unfamiliar with online communications would volunteer to have taken part in the study.